C-4

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO
5090
Ser 106.32/081
MAY 0 9 2016

U.S. Environmental Protection Agency
Region 10
Attn: OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Ladies and Gentlemen:

The Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF) National Pollutant Discharge Elimination System Permit Number WA-000206-2 requires submission of available data from the previous calendar year of sediment monitoring, conducted as required by Washington State Department of Ecology's Toxics Cleanup Program and Environmental Protection Agency's Superfund Program. Although the permit requires submittal of available data by May 15, 2016, sediment samples collected during calendar year 2015 have not been validated. As these data are validated, they will be provided in subsequent submittals. Sediment samples collected during calendar year 2014 were validated in calendar year 2016 and are provided as described below.

Enclosure (1) provides the results of marine monitoring performed in 2014 at Operable Unit (OU) B Marine of the PSNS Superfund site at the Bremerton Naval Complex. This was the sixth round of long-term monitoring carried out for OU B Marine, following prior rounds in 2003, 2005, 2007, 2010, and 2012. The 2014 monitoring was conducted in accordance with the 2014 OU B Marine long-term monitoring plan. The U.S. Navy performed this monitoring to assess and document conditions in Sinclair Inlet subsequent to marine remedial actions conducted between 2000 and 2004 to address sediments contaminated with polychlorinated biphenyls and mercury.

ICIS 5/13/16

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Ser 106.32/081
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Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32 at (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety, and
Health Office
By direction of the
Shipyard Commander

Copy to:
WDOE NWRO (Water Quality Section)

Table 3-1
500-Foot Sediment Grid Results

Cell Number	% Fines (clay + silt)						Total Organic Carbon (%)						Total PCBs – bulk (µg/kg)						Total PCBs – normalized (mg/kg OC)						Mercury (mg/kg)						Codes
	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	
2001	46	73	60	56	65	76	2.9	3.4	3.0	2.5	3.8	4.1	2,300	360	170	200	320	130	79	11	5.7	8.0	8.4	3.2	0.62	0.99	0.70	0.69	1.2	0.70	
2002	87	96	96	89	87	97	3.1	3.4	3.3	5.5	2.9	3.5	36	98	76	92	100	21 J	1.2	2.9	2.3	1.7	3.4	0.60 J	0.84	0.64	0.66	0.77	0.66	0.64	
2003	38	50	45	43	52	45	1.6	1.8	1.8	1.8	2.0	1.6	85	180	110	100	170	41	5.3	10	6.1	5.6	8.5	2.6	0.49	0.50	0.58	0.28	0.62	0.38	
2004	81	97	94	83	96	96	2.8	3.3	2.9	2.8	3.0	3.0	43	140	79	92	110	24 J	1.5	4.2	2.7	3.3	3.7	0.80 J	0.71	0.61	0.78	0.68	0.75	0.67	12
2005	81	92	92	89	91	95	2.7	2.9	2.9	2.6	2.7	2.8	57	110	78	81	100	20 J	2.1	3.8	2.7	3.1	3.7	0.71 J	0.98	0.91	0.89	0.78	0.68	0.76	
2006	81	90	91	82	96	94	2.5	2.8	2.9	2.6	2.6	2.7	71	160	98	100	120	39	2.8	5.7	3.4	3.8	4.6	1.4	0.75	0.72	0.87	0.76	0.72	0.61	3
2007	84	93	92	78	90	93	2.5	2.7	2.8	2.5	2.6	2.6	53	130	100	76	100	30	2.1	4.8	3.6	3.0	3.8	1.2	0.90	0.87	0.94	0.70	0.87	0.65	
2008	85	90	90	71	87	92	2.4	2.6	2.6	2.5	2.5	2.6	110	160	100	120	150	54 J	4.6	6.2	3.8	4.8	6.0	2.1 J	0.91	0.89	0.88	1.1	0.89	0.75	
2009	90	90	92	94	91	95	2.7	2.6	2.6	2.9	2.6	2.7	84	100	68	67 J	89	27 J	3.1	3.8	2.6	2.3 J	3.4	1.0 J	0.98	0.55	0.59	0.81	0.61	0.56	7
2010	46	60	52	53	47	53	1.2	1.7	1.3	1.4	1.2	1.4	53	82	53	45	52	22	4.4	4.8	4.1	3.2	4.3	1.6	0.42	0.48	0.41	0.40	0.35	0.29	
2011	84	88	89	89	89	92	2.2	2.3	2.3	2.4	2.2	2.4	120	87	65	63 J	100	53 J	5.5	3.8	2.8	2.6 J	4.5	2.2 J	4.5	0.59	0.59	0.74	0.56	0.57	10
2012	89	90	90	97	83	88	3.1	2.4	2.4	2.6	2.3	2.4	79	60	59	54 J	170 J	58 J	2.5	2.5	2.5	2.1 J	7.4 J	2.4 J	0.45	0.52	0.73	0.92	0.65	0.74	
2013	82	89	93	97	84	95	3.1	2.8	2.8	3.1	2.7	3.1	230	67	70	54 J	120 J	16 J	7.4	2.4	2.5	1.7 J	4.4 J	0.52 J	1.1	0.50	0.72	0.68	0.60	0.55	5
2014	38	29	30	23	32	31	1.3	0.83	0.90	0.78	1.0	0.95	110	52	31	30	49	21	8.5	6.3	3.4	3.8	4.9	2.2	0.37	0.35	0.39	0.24	0.71	0.25	
2015	86	90	89	69	80	90	2.2	2.2	2.2	2.2	2.1	1.1	63	41	39	54	50	22 J	2.9	1.9	1.8	2.5	2.4	2.0 J	1.2	0.39	0.44	0.46	0.42	0.34	
2016	88	92	89	75	94	94	2.3	2.4	2.7	2.6	2.4	2.5	110	54	66	68	89	31	4.8	2.3	2.4	2.6	3.7	1.2	0.74	0.51	0.67	0.61	0.58	0.49	3
2017	89	96	92	83	88	93	2.6	2.8	2.8	2.6	2.6	2.8	150	85	87	31	100	43	5.8	3.0	3.1	1.2	3.8	1.5	0.72	0.87	0.62	0.76	0.66	0.58	
2018	45	37	46	29	42	38	2.5	1.1	1.3	1.2	1.0	2.3	86	48	41	35	43	20 J	3.4	4.4	3.2	2.9	4.3	0.87 J	0.35	0.32	1.3	0.49	0.27	0.19	
2019	77	86	79	52	69	57	2.1	2.2	2.5	1.7	2.0	2.2	150	120	100	64	120	49	7.1	5.5	4.0	3.8	6.0	2.2	4.1	0.84	0.64	0.50	0.69	0.46	
2020	94	93	91	85	90	95	2.5	2.8	2.8	2.9	2.6	2.8	100	97	74	73	110	36	4.0	3.5	2.6	2.5	4.2	1.3	0.66	0.81	0.54	0.72	0.62	0.58	
2021	65	66	74	49	45	50	1.7	1.8	2.0	1.9	1.6	1.6	84	69	44	52	54	23	4.9	3.8	2.2	2.7	3.4	1.4	0.48	0.39	0.48	0.35	0.31	0.28	
2022	98	98	94	96	94	96	2.8	3.1	3.2	3.3	2.9	3.2	110	94	65	89	110	24 J	3.9	3.0	2.0	2.7	3.8	0.75 J	0.80	0.66	0.72	0.68	0.64	0.63	
2023	85	94	91	84	88	87	2.7	3.0	3.0	3.0	2.7	2.9	150	110	61	83	81	37	5.6	3.7	2.0	2.8	3.0	1.3	0.86	0.59	0.67	0.93	0.63	0.58	
2024	92	88	85	78	81	83	2.7	3.2	3.4	3.4	3.6	3.4	250	160	110	84	130	62	9.3	5.0	3.2	2.5	3.6	1.8	0.84	0.71	0.52	0.52	0.58	0.53	14
2025	82	92	82	100*	90	92	2.8	2.9	3.4	7.2	3.4	3.3	380	240	270	230	240	120	14	8.3	7.9	7.9	7.1	3.6	1.1	0.76	0.82	0.82	0.70	0.61	3
2026	76	96	78	82	78	92	2.7	3.3	3.5	3.5	3.6	3.5	220	190	160	130 J	230 J	100	8.1	5.8	4.6	3.7 J	6.4 J	2.9	0.82	0.70	0.75	0.67	0.74	0.62	
2027	89	83	85	83	78	80	2.9	3.6	3.4	3.0	2.5	2.6	250	160	240	120	120	34	8.6	4.4	7.1	4.0	4.8	1.3	0.69	0.67	0.65	0.68	0.59	0.52	7
2028	56	74	82	94	92	88	2.0	2.0	3.0	3.7	3.6	3.8	200	190	210	170	100	70 J	10	9.5	7.0	4.6	2.8	1.8 J	0.68	0.65	0.93	0.78	0.78	0.57	
2029	71	92	86	94	82	90	3.4	3.4	3.6	3.8	3.6	3.5	290	270	190	180 J	200	72	8.5	7.9	5.3	4.7 J	5.6	2.1	1.0	0.83	0.97	0.79	0.73	0.73	12
2030	85	87	87	75	91	97	3.0	3.1	2.9	2.3	3.7	3.4	320	1,900	2,000	110 J	220	26 J	11	61	69	4.8 J	5.9	0.76 J	0.82	0.76	0.65	0.62	0.78	0.64	
2031	93	94	91	79	93	90	2.9	2.9	3.0	2.7	2.6	2.5	230	340	110	73 J	95	16 J	7.9	12	3.7	2.7 J	3.7	0.64 J	0.75	1.1	0.71	0.53	0.48	0.65	3
2032	93	95	90	92	96	89	2.6	2.7	2.8	3.1	3.0	2.7	99	130	78	68	120	40	3.8	4.8	2.8	2.2	4.0	1.5	0.83	0.85	0.59	0.65	0.69	0.59	
2033	86	90	87	80	94	88	3.1	3.0	3.5	3.3	2.6	3.5	370	340	190	160	240	120 J	12	11	5.4	4.8	9.2	3.4 J	1.4	1.2	0.90	0.75	0.86	0.68	
2034	55	77	83	69	84	89	2.3	2.7	2.9	3.1	3.0	3.2	620	210	150	140 J	290	84 J	27	7.8	5.2	4.5 J	9.7	2.6 J	1.2	0.62	1.0	0.82	0.89	0.98	
2035	79	73	76	84	88	93	2.7	2.2	2.5	2.6	2.9	3.0	170	380	7,300	160 J	200 J	34 J	6.3	17	290	6.2 J	6.9 J	1.1 J	0.58	0.56	1.4	0.53	0.83	0.62	
2036	91	85	88	81	87	94	2.9	3.1	3.0	3.2	2.9	2.9	210	160	99	92 J	140 J	30 J	7.2	5.2	3.3	2.9 J	4.8 J	1.0 J	0.74	0.77	0.75	0.74	0.67	0.64	12

Table 3-1 (Continued)
500-Foot Sediment Grid Results

Cell Number	% Fines (clay + silt)						Total Organic Carbon (%)						Total PCBs – bulk (µg/kg)						Total PCBs – normalized (mg/kg OC)						Mercury (mg/kg)						Codes
	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	
2037	89	87	84	67	77	56	2.8	3.3	2.9	2.6	2.6	2.2	160	150	110	61 J	130 J	34 J	5.7	4.5	3.8	2.3 J	5.0 J	1.6 J	0.30	0.58	0.85	0.55	0.58	0.48	
2038	71	71	66	67	54	52	2.3	2.1	2.1	1.9	1.7	1.6	140	71	79	49	66	18 J	6.1	3.4	3.8	2.6	3.9	1.1 J	0.91	0.65	0.53	0.46	0.45	0.43	
2039	34	45	34	33	51	75	1.8	3.0	1.6	3.8	2.4	3.3	200	420	340	360 J	230	68	11	14	21	9.5 J	9.6	2.1	1.2	1.4	2.0	4.3	0.97	0.72	
2040	68	73	79	48	95	95	2.5	2.7	3.0	3.3	2.9	3.6	480	280	330	110	210	31 J	19	10	11	3.3	7.2	0.86 J	1.1	0.77	1.5	0.93	0.87	0.71	
2041	65	71	85	65	53	88	2.6	3.8	2.8	3.6	9.8	3.4	240	180	180	130	140	26 J	9.2	4.7	6.4	3.6	3.9	0.76 J	0.82	0.65	0.76	0.56	0.52	0.64	
2042	76	82	77	78	79	87	2.6	2.8	2.6	2.8	2.7	2.5	180	240	300	120	180 J	55	6.9	8.6	12	4.2	6.7 J	2.2	0.75	1.5	0.84	0.69	0.75	0.70	10
2043	65	77	75	53	59	47	3.5	2.7	2.6	2.2	2.0	1.9	140	170	76	110	150	46 J	4.0	6.3	2.9	5.0	7.5	2.4 J	0.50	1.3	0.87	0.51	0.59	0.50	14
2044	86	94	90	73	88	91	2.8	3.0	3.0	2.7	2.8	2.9	99	110	79	70 J	170	22 J	3.5	3.7	2.6	2.6 J	6.1	0.76 J	0.85	0.57	0.60	0.56	0.50	0.52	
2045	52	55	91	76	89	95	3.0	2.3	3.7	3.2	3.4	3.4	220	180	170	220	220	64	7.3	7.8	4.6	6.9	6.5	1.9	0.61	0.54	0.82	0.95	0.85	0.86	
2046	29	34	28	10	21	23	1.2	2.0	1.2	1.6	1.7	0.99	490	120	66	61	49	23 J	41	6.0	5.5	3.8	2.9	2.3 J	0.42	0.38	0.20	0.22	0.17	0.18	7
2047	77	80	84	73	57	74	2.2	2.3	2.6	2.9	4.7	2.8	110	2,700	81	75	910	33 J	5.0	120	3.1	2.6	31	1.2 J	0.53	0.55	0.61	0.57	9.3	0.56	
2048	91	95	90	74	85	94	3.0	3.1	3.1	2.8	2.8	3.0	90	100	68	48 J	76	15 J	3.0	3.2	2.2	1.7 J	2.7	0.50 J	0.71	0.89	0.52	0.63	0.66	0.49	14
2049	81	43	49	76	87	88	2.6	1.6	1.5	3.2	3.1	3.2	740	160	310	120	180	84 J	28	10	21	3.8	5.8	2.6 J	0.59	0.42	0.36	0.66	0.55	0.69	
2050	85	88	82	77	81	90	2.6	2.8	2.8	2.4	2.9	2.9	140	130	88	49 J	140 J	28 J	5.4	4.6	3.1	2.0 J	4.8 J	0.97 J	0.57	0.57	0.60	0.88	0.59	2.6	
2051	80	97	90	87	89	92	3.3	3.1	2.9	2.9	3.0	2.9	100	99	95	57 J	93	18 J	3.0	3.2	3.3	2.0 J	3.1	0.62 J	0.57	0.80	0.67	0.76	0.53	0.49	
2052	75	93	81	82	81	89	2.4	3.1	2.8	2.8	2.8	3.0	670	440	240	160	300 J	96 J	28	14	8.6	5.7	11 J	3.2 J	0.93	0.73	0.71	0.69	0.70	1.1	3,7
2053	81	83	87	83	85	86	2.6	2.6	2.7	2.4	3.3	2.6	300	130	90	140	120	53	12	5.0	3.3	5.8	3.6	2.0	0.68	0.42	0.48	0.62	3.0	0.73	3
2054	80	83	83	75	83	89	3.3	3.8	3.0	2.9	2.9	3.0	180	130	59	76	70	21 J	5.5	3.4	2.0	2.6	2.4	0.70 J	0.66	0.61	0.80	0.68	0.51	0.63	
2055	49	63	74	79	84	74	2.1	4.5	3.3	3.8	2.9	2.7	340	320	140	120	250	100 J	16	0.43	4.2	3.2	8.6	3.7 J	0.53	0.76	0.80	1.0	0.66	0.58	
2056	81	71	82	69	81	87	3.2	4.2	2.9	3.4	2.8	2.9	600	440	230	86 J	200 J	66 J	19	0.51	7.9	2.5 J	7.1 J	2.3 J	0.85	1.2	1.1	1.3	1.2	1.0	
2057	69	88	84	80	91	90	5.1	3.1	3.5	3.0	3.9	3.0	280	270	150	86	160	120 J	0.31	8.7	4.3	2.9	4.1	4.0 J	2.1	1.9	1.0	0.76	0.80	0.64	
2058	84	87	84	79	86	89	2.9	3.0	3.0	3.1	2.9	3.1	170	100	79	65 J	77	34	5.9	3.3	2.6	2.1 J	2.7	1.1	0.52	0.70	0.61	0.55	0.46	0.50	
2059	77	79	75	88	92	95	3.6	3.6	2.6	3.2	3.1	3.4	320	170	190	110 J	190	55	8.9	4.7	7.3	3.4 J	6.1	1.6	1.2	1.9	1.2	0.69	0.96	0.59	
2060	48	54	50	84	76	96	3.1	2.7	2.3	4.0	3.3	3.2	420	470	250	100 J	380 J	49	14	17	11	2.5 J	12 J	1.5	4.3	19	2.3	0.94	2.1	0.61	
2061	41	32	34	46	52	94	1.8	2.2	1.7	5.0	4.9	3.2	180	120	120	280 J	690	43 J	10	5.5	7.1	13 J	14	1.3 J	0.35	0.31	0.49	0.42	0.79	0.57	
2062	81	87	81	76	80	81	3.1	2.9	2.9	2.7	2.7	3.2	170	120	110	60 J	90	24 J	5.5	4.1	3.8	2.2 J	3.3	0.75 J	0.71	0.63	0.67	0.57	0.80	0.49	5
2063	71	56	59	84	63	62	5.0	2.6	3.2	3.5	3.6	2.7	860	440	340	140 J	360	310	1.4	17	11	4.0 J	10	11	6.1	3.3	2.3	1.1	1.8	1.2	
2064	77	85	82	74	89	97	3.6	3.4	3.6	3.3	3.2	3.5	470	410	180	100 J	170	71	13	12	5.0	3.0 J	5.3	2.0	1.9	2.0	1.4	0.88	0.78	0.76	5
2065	76	72	52	48	69	67	2.7	2.8	2.4	2.8	2.6	3.0	250	320	240	130 J	170 J	74	9.3	11	10	4.6 J	6.5 J	2.5	1.1	0.67	0.69	0.79	0.77	0.64	
2066	73	87	83	73	80	82	3.3	3.5	3.0	2.6	2.4	2.7	320	200	89	62 J	130	34 J	9.7	5.7	3.0	2.4 J	5.4	1.3 J	0.74	0.94	0.70	0.50	0.78	0.51	5,12,14
2067	56	58	42	53	67	66	4.5	3.3	2.1	7.2	3.2	3.0	400	340	180	57 J	170	110 J	0.60	10	8.6	1.7 J	5.3	3.7 J	1.9	5.7	2.6	0.64	2.1	3.4	
2068	87	66	64	64	70	63	2.8	3.0	3.0	2.9	2.8	2.3	300	240	190	90 J	200	120 J	11	8.0	6.3	3.2 J	7.1	5.2 J	0.49	0.94	1.6	1.5	0.96	0.75	10
2069	38	36	33	36	23	24	2.4	1.7	2.4	1.5	1.2	1.2	86	82	53	62 J	90	46	3.6	4.8	2.2	4.1 J	7.5	3.8	0.56	0.57	0.49	0.58	0.55	0.35	
2070	72	86	77	79	77	82	2.6	2.8	2.6	2.6	2.6	2.6	29	97	59	34 J	72	14 J	1.1	3.5	2.3	1.3 J	2.8	0.54 J	0.65	0.58	0.65	0.52	0.62	0.39	
2071	17	18	20	34	17	18	0.85	0.71	0.89	1.2	0.90	0.80	30	26	16	14	23	17 J	3.5	3.7	1.8	1.2	2.6	2.1 J	0.16	0.25	2.0	0.19	0.18	0.23	

Table 3-1 (Continued)
500-Foot Sediment Grid Results

Cell Number	% Fines (clay + silt)						Total Organic Carbon (%)						Total PCBs – bulk (µg/kg)						Total PCBs – normalized (mg/kg OC)						Mercury (mg/kg)						Codes
	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	
GeoMean	—	—	—	—	—	—	—	—	—	—	—	—	170	160	120	90	130	41	6.0	5.6	4.6	3.2	5.1	1.6	—	—	—	—	—	—	
Arithm. Mean	73	77	76	71	76	80	2.7	2.7	2.7	2.9	2.8	2.7	—	—	—	—	—	—	—	—	—	—	—	—	1.0	1.1	0.86	0.73	0.88	0.66	

Notes:
J - estimated value
Codes 3, 5, 7, 10, 12, and 14 = values shown are averages of primary sample and field duplicate for years 2003, 2005, 2007, 2010, 2012, or 2014, respectively
* - adjusted from 105% reported by laboratory

Table 3-2
1,500-foot Sediment Grid Results

Cell Number	% Fines (clay + silt)						Total Organic Carbon (%)						Total PCBs – bulk (µg/kg)						Total PCBs – normalized (mg/kg OC)						Mercury (mg/kg)						Codes
	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	2003	2005	2007	2010	2012	2014	
2301 *	29	55	61	63	61	54	1.3	2.0	2.0	2.1	2.2	2.2	170	42	30	35 J	54	22 J	13	2.1	1.5	1.7 J	2.5	1.0 J	0.081	0.10	0.093	0.064	0.073	0.070	
2302	37	40	40	39	44	37	0.86	0.94	0.88	2.5	0.98	0.85	21	15	8.7	11	14 J	5.1 J	2.4	1.6	1.0	0.44	1.4 J	0.60 J	0.081	0.090	0.082	0.081	0.077	0.0689	
2303	29	26	22	35	26	25	1.6	1.5	1.1	1.3	1.2	1.4	68	17	13	13 J	20 J	6.4 J	4.3	1.1	1.2	1.0 J	1.7 J	0.46 J	0.084	0.080	0.070	0.067	0.071	0.069	
2304	23	25	16	38	31	29	0.94	1.1	0.60	0.70	1.1	1.0	14	13	4.5	5.7 J	10	2.1 U	1.5	1.2	0.75	0.81 J	0.91	0.21 U	0.071	0.080	0.057	0.063	0.077	0.059	
2305	64	71	71	63	73	80	2.8	3.8	3.4	3.3	3.6	3.5	78	100	77	62	85	31 J	2.8	2.6	2.3	1.9	2.4	0.89 J	0.44	0.45	0.47	0.50	0.44	0.44	
2306	95	88	86	78	83	96	3.6	4.1	3.9	0.58	3.9	3.8	130	130	110	63	120	37 J	3.6	3.2	2.8	11	3.1	0.97 J	0.11	0.87	0.71	0.70	0.73	0.63	
2307	96	95	86	70	90	98	4.1	4.3	4.1	4.2	4.0	4.2	81	200	100	61	110	54	2.0	4.7	2.4	1.5	2.8	1.286	0.83	0.62	0.62	0.64	0.62	0.62	14
2308	96	96	92	72	92	98	3.6	3.3	3.9	2.5	3.5	3.8	93	130	65	74	130 J	49 J	2.6	3.9	1.7	3.0	4.0 J	1.3 J	0.14	0.83	0.67	0.74	0.76	0.72	12
2309	97	85	88	78	90	96	3.8	4.0	4.0	4.0	3.8	4.0	110	130	89	62 J	110 J	37 J	2.9	3.3	2.2	1.6 J	2.9 J	0.93 J	0.81	0.63	0.67	0.65	0.68	0.68	
2310	98	98	94	78	95	99	3.4	3.7	3.4	3.6	3.2	3.7	81	220	100	61	130 J	40	2.4	5.9	2.9	1.7	4.1 J	1.1	0.88	0.72	0.69	0.70	0.74	0.64	
2311	92	87	90	85	89	97	3.5	3.5	3.6	3.8	3.4	3.7	74	120	88	92	120	31	2.1	3.4	2.4	2.4	3.5	0.84	0.82	0.74	0.70	0.77 J	0.77	0.67	7
2312	19	20	21	16	25	20	0.77	0.97	1.0	0.78	1.1	0.82	20	16	14	15	24 J	8.4 J	2.6	1.6	1.4	1.8	2.2 J	1.0 J	0.15	0.15	0.14	0.14	0.18	0.14	10
2313	91	95	92	88	96	97	3.0	3.2	3.2	3.1	3.0	3.0	65 U	130	87	89	110	38	2.2 U	4.1	2.7	2.9	3.7	1.3	0.72	0.78	0.75	0.82	0.64	0.59	
2314	85	97	92	76	91	96	3.5	3.8	3.7	3.6	3.5	3.7	110	120	72	72 J	100	34 J	3.1	3.2	1.9	2.0 J	2.9	0.92 J	0.84	0.60	0.69	0.70	0.71	0.68	3,10
2315	98	98	87	67	93	95	3.3	4.0	4.0	3.8	3.6	3.8	120	100	77	49	100 J	38	3.6	2.5	1.9	1.3	2.8 J	1.0	0.84	0.56	0.78	0.63	0.68	0.60	7
2316	94	93	85	82	89	91	3.6	4.2	4.2	4.3	4.0	4.0	120	120	76	100	140	82	3.3	2.9	1.8	2.3	3.5	2.1	0.74	0.48	0.51	0.56	0.53	0.51	
2317	90	96	89	92	95	97	3.2	2.9	3.4	3.4	6.0	3.2	120	100	65	93	110	30 J	3.8	3.4	1.9	2.7	1.8	0.94 J	0.81	0.70	0.69	0.72	0.64	0.68	
2318	87	97	89	94	90	97	3.2	3.4	3.4	3.4	3.3	3.4	95	95	54	70	89	27 J	3.0	2.8	1.6	2.1	2.7	0.79 J	0.84	0.65	0.70	0.66	0.59	0.59	
2319	97	96	84	96	96	96	3.0	3.7	3.6	3.4	3.2	3.4	77	100	48	51 J	92	30 J	2.6	2.7	1.3	1.5 J	2.9	0.88 J	0.71	0.52	0.56	0.56	0.62	0.62	
2320	86	94	90	84	94	96	2.8	3.1	3.1	2.9	2.8	3.0	75	97	62	81	100	29 J	2.7	3.1	2.0	2.8	3.6	0.97 J	0.59	0.58	0.56	0.61	0.65	0.56	
2321	83	94	90	77	85	94	2.6	3.3	3.3	2.8	2.8	3.0	130	150	63	64 J	77	25 J	5.0	4.5	1.9	2.3 J	2.8	0.83 J	0.98	1.3	0.86	0.65	0.73	0.58	
2322	95	90	89	76	90	94	2.7	3.3	3.0	3.0	2.8	3.1	86	70	50	45	93	18 J	3.2	2.1	1.7	1.5	3.3	0.58 J	0.64	0.53	0.59	0.51	0.51	0.38	3
2323	63	67	64	53	60	66	2.4	2.6	3.2	2.1	2.2	2.5	65	50	48	32	61	8.8 J	2.7	1.9	1.5	1.5	2.8	0.35 J	0.46	0.42	0.46	0.34	0.33	0.32	10
2324	80	82	84	76	87	84	2.7	2.9	2.9	2.7	2.9	2.7	79	80	61	44	72	14 J	2.9	2.8	2.1	1.6	2.5	0.52 J	0.59	0.62	0.69	0.51 J	0.64	0.48	
2325	56	51	55	41	50	54	1.6	1.7	2.6	1.7	1.6	2.5	47	38	26	18	32	7.5 J	2.9	2.2	1.0	1.1	2.0	0.30 J	0.39	0.42	0.34	0.28	0.27	0.41	
2326	13	13	12	12	9.7	9.9	0.54	0.42	0.37	0.36	0.34	0.28	5.6	2.5 U	1.7 U	1.3 U	4.4 U	4.3 U	1.0	0.60 U	0.46 U	0.36 U	1.3 U	1.5 U	0.025	0.020	0.029	0.026	0.024	0.024 J	12,14
2327	80	84	84	75	94	92	3.5	2.9	2.9	3.0	3.7	3.1	69	91	54	44	76	25 J	2.0	3.1	1.9	1.5	2.1	0.81 J	0.60	0.58	0.61	0.55	0.48	0.47	
2328	75	82	81	63	91	93	2.5	2.8	3.3	2.8	2.8	2.9	61	63	39	33	59	4.2 U	2.4	2.3	1.2	1.2	2.1	0.14483 U	0.60	0.60	0.55	0.36	1.6	0.33	
2329	49	49	53	48	57	47	1.5	1.8	1.7	2.0	2.0	1.6	37	39	29	16 J	46 J	7.0 J	2.5	2.2	1.7	0.80 J	2.3 J	0.44 J	0.31	0.24	0.28	0.24	0.31	0.24	
2330	9	16	15	21	17	15	0.35	0.41	0.39	0.39	0.70	0.47	2.5 U	2.6 U	2.9	4.7 J	3.0 U	2.1 U	0.71 U	0.63 U	0.74	1.2 J	0.43 U	0.45 U	0.022	0.060	0.055	0.050	0.059	0.052	
2331	81	83	78	60	75	74	2.4	2.6	2.6	1.0	2.5	2.3	57	72	43	33 J	46	12 J	2.4	2.8	1.7	3.3 J	1.8	0.52 J	0.55	0.52	0.64	0.39	2.2	0.41	5
2332	39	32	37	28	33	38	1.4	1.1	1.4	0.76	1.6	1.5	52	30	38	27	44	28	3.7	2.7	2.7	3.6	2.8	1.9	0.39	0.36	0.46	0.35	0.31	0.26	
Geomean	—	—	—	—	—	—	—	—	—	—	—	—	57	58	38	35	56	17	2.6	2.4	1.6	1.7	2.4	0.75	—	—	—	—	—	—	
Ar. Mean	70	72	69	63	72	74	2.5	2.7	2.8	2.5	2.7	2.7	—	—	—	—	—	—	—	—	—	—	—	—	0.52	0.50	0.49	0.46	0.55	0.42	

Notes:
U - analyte not detected
J - estimated value
Codes 3, 5, 7, 10, 12, and 14 = values shown are averages of primary sample and field duplicate for years 2003, 2005, 2007, 2010, 2012, or 2014, respectively
* - results for cell 2301 excluded from mean values for 2003

4

Enclosure (1)

Table 3-3
Results of Sediment Sampling in Sinclair Inlet, 2003 – 2014

	2003			2005			2007			2010			2012			2014		
	500-ft	1500-ft	Inlet	500-ft	1500-ft	Inlet	500-ft	1500-ft	Inlet	500-ft	1500-ft	Inlet	500-ft	1500-ft	Inlet	500-ft	1500-ft	Inlet
Total PCBs (mg/kgOC)																		
Geomean	6.7	2.6	3.2	6.1	2.5	3.0	4.5	1.6	2.0	3.2	1.7	1.9	5.1	2.4	2.8	1.6	0.73	0.85
Mercury (mg/kg)																		
Arithmetic Mean	1.0	0.50	0.60	1.1	0.50	0.62	0.85	0.49	0.56	0.73	0.46	0.51	0.88	0.55	0.62	0.66	0.42	0.47

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO

5090
Ser 106.32/0105
MAY 29 2015

Mr. Chae Park
US EPA - Region 10
NPDES Compliance Unit OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Mr. Park:

This letter provides Puget Sound Naval Shipyard and Intermediate Maintenance Facility's Federal Facilities Compliance Agreement (FFCA) First Semi-Annual Status Report for 2015, required by FFCA EPA Docket No. CWA-10-2013-0045 of April 4, 2013. The report is attached.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32, at (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety, and
Health Office
By Direction

Enclosures: PSNS & IMF Federal Facilities Compliance Agreement EPA Docket No. CWA-10-2013-0045 First Semi-Annual Status Report for 2015

PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
FIRST SEMI-ANNUAL STATUS REPORT FOR 2015

This report provides status of actions prescribed by Federal Facilities Compliance Agreement (FFCA) EPA Docket Number CWA-10-2013-0045 as follows:

FFCA Item 13.a

As required by the FFCA, PSNS & IMF continued, for the months of October 2014 through March 2015, to minimize discharges of wastewater to the permitted outfalls by routing to the sewer system or tanks unless the system was temporarily down for maintenance or the sewer system capacities were reached due to heavy rain. This is accomplished by setting each of the dry docks' process water turbidity meters at zero nephelometric turbidity units (NTUs) which routes all process water irrespective of turbidity to the sewer system or to a tank for treatment. There were portions of 76 days during this reporting period when these circumstances required PSNS & IMF to send water to the bay.

The Process Water Collection System tank at Dry Dock 3 had to be pumped down manually due to level sensor issues while repairs were being made during the period of October 10, 2014 through October 15, 2014; therefore about half of the stormwater went to the bay for those days. Due to pump mechanical problems at Dry Dock 1, stormwater was directed to the bay for a total of 19 days while repairs were in progress. There was no vessel in Dry Dock 1, nor have there been any dry dock outfall exceedances during this reporting period.

FFCA Item 13.b

Turbidity meters for all dry docks, except Dry Dock 2, were calibrated by December 31, 2014. Table I below provides the dates of calibration for all turbidity meters:

Table I Turbidity Meter Calibration

Dry Dock	Turbidity Meter Calibration Completion Date
1	12/23/14
2	*
3	12/23/14
4	12/23/14
5	12/23/14
6	12/23/14

* The turbidity sensor output at Dry Dock 2 stopped reading correctly in December 2014. The transducer replacement part has been acquired and repairs should be completed by early June

been acquired and repairs should be completed by early June 2015. Because the meters have usually been set to "0" to send all water to the POTW, this has been a low risk issue.

FFCA Item 13.c

Since the last FFCA report, no project lasting more than six months has been completed at PSNS & IMF Bremerton.

FFCA Item 13.d

This item was closed in the first FFCA report that was sent on May 15, 2013.

FFCA Item 13.e

Military Construction Project P-419, which upgrades the infrastructure of Dry Dock 6 and enables PSNS & IMF to send water on the floor of the dock to the sewer or to the Oily Waste Treatment System for treatment based on turbidity levels, is estimated to be at 99% complete. The system is still considered operational, but the MILCON is considered incomplete, since we are currently waiting on one last contract modification for a computer firewall.

Since the firewall does not affect operation, this item is submitted complete pursuant to paragraph 20 of the FFCA.

FFCA Item 13.f

The contract has been awarded for Military Construction Project P-420 for the piping for Dry Docks 3 and 4 and resource procurement is underway. The construction contract for MILCON P-422, which upgrades the infrastructures of Dry Docks 1, 2, and 5 has been awarded and has an expected completion date of October 2016.

FFCA Item 13.g

This item was closed in the first FFCA report that was sent on May 29, 2014.

FFCA Item 13.h

FFCA Item 13.h

The PWCS periodic inspection of Item 13.g did not identify any needed repairs/replacement/maintenance.

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO
5090
Ser 106.32/0094
MAY 15 2015

U.S. Environmental Protection Agency
Region 10
Attention: OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Ladies and Gentlemen:

The Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF) National Pollutant Discharge Elimination System (NPDES) Permit Number WA-000206-2 requires submission of available data from the previous calendar year of sediment monitoring conducted as required by Washington State Department of Ecology's Toxics Cleanup Program and Environmental Protection Agency's Superfund Program. The permit requires submittal of available data by May 15, 2015. Sediment samples were collected during calendar year 2014 and are being provided as described below.

Enclosure (1) provides methyl and total mercury data in surface sediments and sediment cores co-located with tissue samples taken as part of Operable Unit (OU) B Marine Monitoring from May through June 2013. These data are from the final report. Preliminary results were provided last year and all results are the same except for a few additional results that have been qualified as estimates.

Samples were taken as part of OU B Marine Monitoring in 2014. The report has not been finalized and is under review. Enclosure (2) provides the preliminary results. Pre-construction samples were taken at Pier 6 in 2014 and the preliminary results are included in enclosure (3).

Sediment samples were also taken in 2014 as part of the ongoing demonstration project being conducted to evaluate the performance of an activated carbon sediment amendment installed at Pier 7. The study, funded by the Environmental Security Technology Certification Program (ESTCP), is scheduled to be completed in fiscal year 2016 and will include samples collected from 2012 through 2015. Final results from this study are not yet available.

ICIS 412015

MAY 19 2015

5090
Ser 106.32/0094
MAY 15 2015

Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32, at (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety, and
Health Office
By direction of
Shipyard Commander

Enclosure: 1. 2013 Sinclair Inlet Marine Monitoring Data Report
2. Sediment Sampling Results from 2014 OU B Marine Monitoring
3. 2014 Preliminary Pier 6 Pre-construction Sediment Sampling

Copy to: WDOE NWRO (Water Quality Section)

Table 4-1
2013 Sinclair Inlet 0-3 Cm Sediments for Mapping of Methyl Mercury

Grid Location	Sample Name	Fines (clay + silt) (%)	TOC (%)	Total Mercury (mg/kg)	Methyl Mercury (µg/kg)	Methyl/ Total Mercury (%)
500' Grid - OU B Marine						
500-08	SD-18	90	2.6	0.87	2.6	0.30
500-11	SD-19	83	2.2	0.48	1.9	0.40
500-11 (FD)	SD-20	78	2.2	0.51	1.7	0.33
500-18	SD-21	45	0.86	0.29	3.0	1.03
500-19	SD-22	90	2.6	0.82	0.16 J	0.020
500-29	SD-23	60	3.3	0.76	0.20 J	0.026
500-30	SD-24	66	2.8	0.88	2.9	0.33
500-32	SD-25	86	2.6	0.86	1.5	0.17
500-37	SD-26	68	2.2	1.3	2.3	0.18
500-38	SD-27	56	2.0	0.58	0.98	0.17
500-39	SD-28	79	3.8	1.2	3.9	0.33
500-44	SD-29	64	2.6	0.47	3.5	0.74
500-46	SD-30	28	1.0	0.26	1.5	0.58
500-47	SD-31	71	2.3	1.0	1.7	0.17
500-49	SD-32	92	3.1	0.52	1.2	0.23
500-52	SD-33	84	3.6	0.67	4.4	0.66
500-53	SD-34	88	3.0	0.72	0.30 U	0.021
500-57	SD-35	82	3.1	0.73	3.8	0.52
500-61	SD-36	87	3.1	0.64	2.3	0.36
500-65	SD-37	82	3.3	0.67	2.8	0.42
500-70	SD-38	69	2.7	0.51	0.43 J	0.084
1,500' Grid - Outer Sinclair Inlet						
1,500-04	SD-39	22	0.62	0.078	0.75	0.96
1,500-05	SD-40	76	3.3	0.48	5.9	1.23
1,500-05 (FD)	SD-41	77	3.3	0.45	6.2	1.38
1,500-08	SD-42	59	3.3	0.84	4.4	0.52
1,500-12	SD-43	32	0.80	0.088	0.64	0.73
1,500-13	SD-44	90	3.3	0.84	7.4	0.88
1,500-16	SD-45	76	4.1	0.64	2.7	0.42
1,500-18	SD-46	79	3.6	0.62	3.1	0.50
1,500-21	SD-47	92	3.5	1.1	3.2	0.29
1,500-25	SD-48	21	0.86	0.19	0.56 J	0.29
1,500-31	SD-49	73	2.6	0.49	1.5	0.31
1,500-32	SD-50	71	2.4	0.46	2.5	0.54

Notes:
FD - field duplicate
U - not detected
J - estimated value

Enclosure (1)

Table 4-3
2013 0-10 Cm Sediments Co-Located With Tissue Samples

Location	Sample Name	Fines (clay + silt) (%)	TOC (%)	Total Mercury (mg/kg)	Methyl Mercury (µg/kg)	Methyl/ Total Mercury (%)	Description
Sediments Co-Located with Clam Samples in OU B Marine							
500-18	SD-10	2.7	0.19	0.051	0.060 J	0.12	OU B Marine Zone 1 clam collection
500-39	SD-11-Clam	25	4.9	0.44	4.0	0.91	OU B Marine Zone 2 clam collection
500-69	SD-12	5.2	0.85	0.076	0.53	0.70	OU B Marine Zone 4 clam collection
500-69	SD-13 (FD)	5.8	0.60	0.15	0.24 J	0.16	OU B Marine Zone 4 clam collection
Sediments Co-Located with Clam Samples in Outer Sinclair Inlet							
1,500-12	SD-15	5.0	0.18	0.018	0.10 U	0.56	Ross Point clam collection
1,500-26	SD-16	28	0.67	0.062	0.53	0.85	Blackjack Creek estuary clam collection
Sediments Co-Located with Clam Samples in Carr Inlet							
Carr Inlet	SD-17	5.7	0.31	0.011	0.12 J	1.1	Penrose Point State Park clam collection
Sediments Co-Located with Crab Samples in OU B Marine							
500-11	SD-01	45	1.2	0.26	1.5	0.58	OU B Marine Zone 1 crab collection
500-24	SD-02	84	3.4	3.1	1.9	0.061	OU B Marine Zone 1 crab collection
500-31	SD-03	59	2.2	0.64	2.9	0.45	OU B Marine Zone 2 crab collection
500-31	SD-04 (FD)	55	2.5	0.74	1.8	0.24	OU B Marine Zone 2 crab collection
500-39	SD-11	79	3.7	1.6	1.8	0.11	OU B Marine Zone 2 crab collection
500-45	SD-05	89	3.2	0.84	1.9	0.23	OU B Marine Zone 2 crab collection
500-44	SD-06	47	1.5	0.31	1.9	0.61	OU B Marine Zone 3 crab collection
500-55	SD-07	54	1.8	1.2	2.5	0.21	OU B Marine Zone 3 crab collection
500-59	SD-08	84	3.4	0.85	1.2	0.14	OU B Marine Zone 4 crab collection
500-61	SD-09	77	2.9	0.62	1.2	0.19	OU B Marine Zone 4 crab collection

Notes:
FD - field duplicate
J - estimated value
U - not detected

Sediment sampling results from 2014 OU B Marine Monitoring

500-foot Sediment Grid Results 2014

Cell Number	% Fines (clay + silt)	Total Organic Carbon (%)	Total PCBs - bulk (µg/kg)		Total PCBs - normalized (mg/kg OC)		Mercury (mg/kg)	
2001	76	4.1	130		3.2		0.70	
2002	97	3.5	21	J	0.60	J	0.64	
2003	45	1.6	41		2.6		0.38	
2004	96	3.0	24	J	0.80	J	0.67	
2005	95	2.8	20	J	0.71	J	0.76	
2006	94	2.7	39		1.4		0.61	
2007	93	2.6	30		1.2		0.65	
2008	92	2.6	54	J	2.1	J	0.75	
2009	95	2.7	27	J	1.0	J	0.56	
2010	53	1.4	22		1.6		0.29	
2011	92	2.4	53		2.2		0.57	
2012	88	2.4	58	J	2.4	J	0.74	
2013	95	3.1	16	J	0.52	J	0.55	
2014	31	0.95	21		2.2		0.25	
2015	90	1.1	22	J	2.0	J	0.34	
2016	94	2.5	31		1.2		0.49	
2017	93	2.8	43		1.5		0.58	
2018	38	2.3	20	J	0.87	J	0.19	
2019	57	2.2	49		2.2		0.46	
2020	95	2.8	36		1.3		0.58	
2021	50	1.6	23		1.4		0.28	
2022	96	3.2	24	J	0.75	J	0.63	
2023	87	2.9	37		1.3		0.58	
2024	83	3.4	62		1.8		0.53	**
2025	92	3.3	120		3.6		0.61	
2026	92	3.5	100		2.9		0.62	
2027	80	2.6	34		1.3		0.52	
2028	88	3.8	70	J	1.8	J	0.57	
2029	90	3.5	72		2.1		0.73	
2030	97	3.4	26	J	0.76	J	0.64	
2031	90	2.5	16	J	0.64	J	0.65	
2032	89	2.7	40		1.5		0.59	
2033	88	3.5	120	J	3.4	J	0.68	
2034	89	3.2	84	J	2.6	J	0.98	
2035	93	3.0	34	J	1.1	J	0.62	
2036	94	2.9	30	J	1.0	J	0.64	
2037	56	2.2	34	J	1.6	J	0.48	
2038	52	1.6	18	J	1.1	J	0.43	
2039	75	3.3	68		2.1		0.72	
2040	95	3.6	31	J	0.86	J	0.71	
2041	88	3.4	26	J	0.76	J	0.64	
2042	87	2.5	55		2.2		0.70	
2043	47	1.9	46	J	2.4	J	0.50	**
2044	91	2.9	22	J	0.76	J	0.52	
2045	95	3.4	64		1.9		0.86	
2046	23	0.99	23	J	2.3	J	0.18	
2047	74	2.8	33	J	1.2	J	0.56	
2048	94	3.0	15	J	0.50	J	0.49	**
2049	88	3.2	84	J	2.6	J	0.69	
2050	90	2.9	28	J	0.97	J	2.6	
2051	92	2.9	18	J	0.62	J	0.49	
2052	89	3.0	96	J	3.2	J	1.1	
2053	86	2.6	53		2.0		0.73	

Enclosure (2)

500-foot Sediment Grid Results 2014

Cell Number	% Fines (clay + silt)	Total Organic Carbon (%)	Total PCBs - bulk (µg/kg)		Total PCBs - normalized (mg/kg OC)		Mercury (mg/kg)	
2054	89	3.0	21	J	0.70	J	0.63	
2055	74	2.7	100	J	3.7	J	0.58	
2056	87	2.9	66	J	2.3	J	1.0	
2057	90	3.0	120	J	4.0	J	0.64	
2058	89	3.1	34		1.1		0.50	
2059	95	3.4	55		1.6		0.59	
2060	96	3.2	49		1.5		0.61	
2061	94	3.2	43	J	1.3	J	0.57	
2062	81	3.2	24	J	0.75	J	0.49	
2063	62	2.7	310		11		1.2	
2064	97	3.5	71		2.0		0.76	
2065	67	3.0	74		2.5		0.64	
2066	82	2.7	34	J	1.3	J	0.51	**
2067	66	3.0	110	J	3.7	J	3.4	
2068	63	2.3	120	J	5.2	J	0.75	
2069	24	1.2	46		3.8		0.35	
2070	82	2.6	14	J	0.54	J	0.39	
2071	18	0.80	17	J	2.1	J	0.23	
GeoMean	—	—	40		1.6		—	
Arithm. Mean	80	2.7	—		—		0.66	
Min	18	0.80	14		0.50		0.18	
Max	97	4.1	310		11		3.4	
StDev	20	0.70	44		1.5		0.45	
Median					1.6		0.61	

Notes:

J = estimated value

** = 2014 values shown for cell are averages of primary sample and field duplicate

TOC value outside range generally accepted as valid for normalizing of PCBs

2014 Preliminary Pier 6 Pre-construction Sediment Sampling

	Fines (%)	TOC (%)	PCBs (µg/kg)	PCBs (mg/kgOC)	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
SQS/CSL	—	---	—	**12/65**	**57/93**	**5.1/6.7**	**260/270**	**390/390**	**450/530**	**0.41/0.59**	**6.1/6.1**	**410/960**
PRE-01	18	8.7	3.9	—	2.7	0.37	7.8	25	13	0.17	0.086	51
PRE-02	22	8.1	4.6	—	2.8	0.38	9.1	37	13	0.13	0.10	53
PRE-03	23	1.9	12	0.63	19	0.71	44	140	84	0.78	0.28	360
PRE-04	12	6.5	2.2	—	2.9	0.32	9.6	30	10	0.069	0.073	78
PRE-05	17	8.1	2.6	---	3.4	1.1	21	93	21	0.083	0.096	290
PRE-06	7.3	8.3	2.4	---	1.2	0.18	3.3	8.1	4.4	0.023	0.036	25
PRE-07	13	6.9	1.1	—	1.8	0.18	4.2	9.1	5.7	0.041	0.056	35
PRE-08	19	8.6	9.4	—	2.7	0.30	6.2	15	10	0.077	0.071	32
PRE-09	14	8.6	17	—	7.0	0.48	16	51	39	0.19	0.15	97
PRE-10	18	9.6	7.6	—	4.4	0.54	10	42	28	0.18	0.11	87
PRE-FD (10)	14	8.0	11	---	6.3	0.44	17	51	42	0.13	0.12	140
PRE-11	6.3	9.4	10	—	5.8	0.30	15	35	17	0.095	0.11	72
PRE-12	12	8.6	34	—	61	0.98	130	270	280	0.35	0.64	2,000
Minimum	6.3	1.9	1.1	0.63	1.2	0.18	3.3	8.1	4.4	0.023	0.036	25
Maximum	23	9.6	34	0.63	61	1.1	130	270	280	0.78	0.64	2,000
Mean	15	7.8	9.1	0.63	9.3	0.48	23	62	44	0.18	0.15	260
Std Deviation	5.1	2.0	8.9	---	16.2	0.29	34	72	74	0.20	0.16	530

	Total Mercury (mg/kg)	Methyl Mercury (µg/kg)	Methyl/ Total Mercury (%)
PRE-01	0.13	0.46 J	0.36
PRE-02	0.091	0.79 J	0.87
PRE-03	0.15	0.37 J	0.24
PRE-04	0.099	0.41 J	0.41
PRE-05	0.061	0.46 J	0.75
PRE-06	0.044	0.66 J	1.5
PRE-07	0.058	0.80	1.4
PRE-08	0.087	0.59 J	0.68
PRE-09	0.090	1.1	1.3
PRE-FD (9)	0.093	0.39 J	0.42
PRE-10	0.14	1.1	0.84
PRE-11	0.20	0.46 J	0.23
PRE-12	0.512	1.1	0.21
Minimum	0.044	0.37	0.21
Maximum	0.51	1.1	1.5
Mean	0.13	0.67	0.70
Std Deviation	0.12	0.29	0.45

TOC value outside range normally accepted for use in carbon-normalization of PCBs
Result exceeds State Sediment Quality Standard (SQS)
Result exceeds State Cleanup Screening Level (CSL)
J = Estimated Value

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO

5090
Ser 106.32/0341

NOV 25 2014

Mr. Chae Park
US EPA Region 10
NPDES Compliance Unit OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

DEC - 1 2014

Dear Mr. Park:

This letter provides Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF's) Federal Facilities Compliance Agreement (FFCA) Second Semi-Annual Status Report for 2014, required by FFCA EPA Docket No. CWA-10-2013-0045 of 04 April 2013. The report is attached.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32, at (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety, and
Health Office
By Direction

Enclosure: 1. PSNS & IMF Federal Facilities Compliance Agreement EPA Docket No. CWA-10-2013-0045 Second Semi-Annual Status Report for 2014

PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
SECOND SEMI-ANNUAL STATUS REPORT FOR 2014

This report provides status of actions prescribed by Federal Facilities Compliance Agreement (FFCA) EPA Docket Number CWA-10-2013-0045 as follows:

FFCA Item 13.a

As required by the FFCA, PSNS & IMF continued, for the months of April 2014 through September 2014, to minimize discharges of wastewater to the permitted outfalls by routing to the sewer system or tanks unless the system was temporarily down for maintenance or the sewer system permitted allotment is exceeded due to heavy rain. This is accomplished by setting each of the dry docks' process water turbidity meters at zero nephelometric turbidity units (NTUs) which routes all process water irrespective of turbidity to the sewer system or to a tank for treatment. There were portions of 55 days during this reporting period when these circumstances required PSNS & IMF to send water to the bay.

There were also two occasions in which incorrect operation of the process water collection systems resulted in routing water to the bay. The first occurred September 22, 2014, in which the system at Dry Dock 4 was secured in the evening until the following morning. On September 24, 2014, due to heavy rains, stormwater from all six dry docks was directed to the bay due to sewer capacity limits. On September 25 and 26, however, the system at Dry Dock 2 was not redirected to the sewer. These two events were investigated and corrective actions were put in place to prevent reoccurrence.

FFCA Item 13.b

Turbidity meter calibration dates for all dry docks (Dry Docks 1 through 6) were provided in the last report and all are still currently within the annual calibration period. The next FFCA report will provide updated calibration status of the turbidity meters (calibration due by December 31 of each year).

FFCA Item 13.c

Since the last FFCA report, two projects were completed at PSNS & IMF. Cleaning of Dry Dock 6 and its associated process water tank as completed by May 16, 2014. Cleaning of Dry Dock 5 and its associated process water tank was completed by August 19, 2014.

FFCA Item 13.d

This item was closed in the first FFCA report sent May 15, 2013.

FFCA Item 13.e

Military Construction Project P-419 which upgrades the infrastructure of Dry Dock 6 and enables PSNS & IMF to send water on the floor of the dock to sewer or to the Oily Waste Treatment System (OWTS) for treatment based on turbidity levels is still estimated to be at 97% complete. The system is still considered operational but the MILCON is considered incomplete until the contractor runs through the system and completes the commissioning.

FFCA Item 13.f

The contract has been awarded for Military Construction Project P-420 for the piping for Dry Docks 3 and 4 and resource procurement is underway. Funding for Military Construction Project P-422 which upgrades the infrastructures of Dry Docks 1, 2 and 5 for fiscal year 2015 has been approved. Construction award date is projected to be May 2015.

FFCA Item 13.g

This item was closed in the first FFCA report sent May 29, 2014.

FFCA Item 13.h

The PWCS periodic inspection of Item 13.g did not identify any needed repairs/replacement/maintenance.

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DEPARTMENT OF THE NAVY

COMMANDER
ATTN CODE 106
NAVSHIPYD AND IMF PUGET SOUND
1400 FARRAGUT AVENUE
BREMERTON WA 98314-5001

OFFICIAL BUSINESS

MR CHAE PARK
US EPA REGION 10
NPDES COMPLIANCE UNIT OCE 133
1200 SIXTH AVENUE SUITE 900
SEATTLE WA 98101

RETURN RECEIPT REQUESTED

98101$3188 C002

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO
5090
Ser 106.32/0111
APR 30 2014

U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101
Attention: OCE-133

Ladies and Gentlemen:

The Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF's) National Pollutant Discharge Elimination System (NPDES) permit number WA-000206-2 requires submission of available data from the previous calendar year of sediment monitoring conducted as required by Washington State Department of Ecology's Toxics Cleanup Program and Environmental Protection Agency's Superfund Program. The permit requires submittal of available data by 15 May 2014. Sediment samples were collected during calendar year 2013.

Enclosure (1) provides Total and Methyl Mercury data in surface sediments and sediment cores co-located with tissue samples taken as part of Operable Unit (OU) B Marine Monitoring from May through June 2013. The report has not been finalized and the report is currently under review. The results from the draft report are provided. If there are any changes to the draft report when the final report is issued, they will be provided in next year's submission of this data.

Samples were also taken in 2013 as part of the verification of an Activated Carbon Sediment Amendment installed at Pier 7. Results for this study are not yet available.

IGS
5/14/14

5090
Ser 106.32/0111

Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32 at telephone number (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety and Health Office
By direction

Enclosure: (1) 2013 Sediments Data for Total and Methyl Mercury reported by URS Corp

Copy to: WDOE NWRO (Water Quality Section)

MAY 13 2014

Table 4-6
2013 0-10 Cm Sediments Co-Located With Tissue Samples

Location	Sample	% Fines (clay + silt)	TOC (%)	Total Mercury (mg/kg)	Methyl Mercury (µg/kg)	Description
Sediments Co-Located with Crab Samples in OU B Marine						
500-11	SD-01	45	1.2	0.26	1.5	OU B Marine Zone 1 crab collection
500-24	SD-02	84	3.4	3.1	1.9	OU B Marine Zone 1 crab collection
500-39	SD-03	59	2.2	0.64	2.9	OU B Marine Zone 2 crab collection
500-31	SD-04	55	2.5	0.74	1.8	OU B Marine Zone 2 crab collection
500-45	SD-05	89	3.2	0.84	1.9	OU B Marine Zone 2 crab collection
500-44	SD-06	47	1.5	0.31	1.9	OU B Marine Zone 3 crab collection
500-55	SD-07	54	1.8	1.2	2.5	OU B Marine Zone 3 crab collection
500-59	SD-08	84	3.4	0.85	1.2	OU B Marine Zone 4 crab collection
500-61	SD-09	77	2.9	0.62	1.2	OU B Marine Zone 4 crab collection
Sediments Co-Located with Clam Samples in OU B Marine						
500-18	SD-10	2.7	0.19	0.051	0.060 J	OU B Marine Zone 1 clam collection
500-39	SD-11	79	3.7	1.6	1.8	OUBM Zone 2 clam collected from vessel
500-39	SD-11-Clam	25	4.9	0.44	4.0	OU B Marine Zone 2 clam collection
500-69	SD-12	5.2	0.85	0.076	0.53	OU B Marine Zone 4 clam collection
500-69 (FD)	SD-13	5.8	0.60	0.15	0.24	OU B Marine Zone 4 clam collection
Sediments Co-Located with Clam Samples in Outer Sinclair Inlet						
1,500-12	SD-15	5.0	0.18	0.018	0.10	Ross Point clam collection
1,500-26	SD-16	28	0.67	0.062	0.53	Blackjack Creek estuary clam collection
Sediments Co-Located with Clam Samples in Carr Inlet						
Carr Inlet	SD-17	5.7	0.31	0.011	0.12	Penrose Point St Pk clam collection

Notes:
FD - field duplicate
J - estimated value

Enclosure (1)

Table 4-1
2013 Sinclair Inlet 0-3 Cm Sediments for Mapping of Methylmercury

Grid Location	Sample	% Fines (clay + silt)	TOC (%)	Total Mercury (mg/kg)	Methyl Mercury (µg/kg)
500' Grid – OU B Marine					
500-08	SD-18	90	2.6	0.87	2.6
500-11	SD-19	83	2.2	0.48	1.9
500-11 (FD)	SD-20	78	2.2	0.51	1.7
500-18	SD-21	45	0.86	0.29	3.0
500-19	SD-22	90	2.6	0.82	0.16 J
500-29	SD-23	60	3.3	0.76	0.20 J
500-30	SD-24	66	2.8	0.88	2.9
500-32	SD-25	86	2.6	0.86	1.5
500-37	SD-26	68	2.2	1.3	2.3
500-38	SD-27	56	2.0	0.58	0.98
500-39	SD-28	79	3.8	1.2	3.9
500-44	SD-29	64	2.6	0.47	3.5
500-46	SD-30	28	1.0	0.26	1.5
500-47	SD-31	71	2.3	1.0	1.7
500-49	SD-32	92	3.1	0.52	1.2
500-52	SD-33	84	3.6	0.67	4.4
500-53	SD-34	88	3.0	0.72	0.30 U
500-57	SD-35	82	3.1	0.73	3.8
500-61	SD-36	87	3.1	0.64	2.3
500-65	SD-37	82	3.3	0.67	2.8
500-70	SD-38	69	2.7	0.51	0.43 J
1,500' Grid – Outer Sinclair Inlet					
1,500-04	SD-39	22	0.62	0.078	0.75
1,500-05	SD-40	76	3.3	0.48	5.9
1,500-05 (FD)	SD-41	77	3.3	0.45	6.2
1,500-08	SD-42	59	3.3	0.84	4.4
1,500-12	SD-43	32	0.80	0.088	0.64
1,500-13	SD-44	90	3.3	0.84	7.4
1,500-16	SD-45	76	4.1	0.64	2.7
1,500-18	SD-46	79	3.6	0.62	3.1
1,500-21	SD-47	92	3.5	1.1	3.2
1,500-25	SD-48	21	0.86	0.19	0.56
1,500-31	SD-49	73	2.6	0.49	1.5
1,500-32	SD-50	71	2.4	0.46	2.5

Notes:
FD - field duplicate
U - not detected
J - estimated value

Enclosure (1)

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO
5090
Ser 106.32/0129
MAY 29 2014

Mr. Chae Park
US EPA - Region 10
NPDES Compliance Unit OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Mr. Park:

This letter provides Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF's) Federal Facilities Compliance Agreement (FFCA) First Semi-Annual Status Report for 2014, required by FFCA EPA Docket No. CWA-10-2013-0045 of 04 April 2013. The report is attached.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Questions or comments regarding this information may be addressed to Ms. Michelle Aylward, Code 106.32, at (360) 476-0118.

Sincerely,

S. E. McKEE
Head, Environmental Division
Environmental, Safety, and
Health Office
By Direction

Enclosures: 1. PSNS & IMF Federal Facilities Compliance Agreement EPA Docket No. CWA-10-2013-0045 First Semi-Annual Status Report for 2014

5090
Ser 106.32/0129

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PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
FIRST SEMI-ANNUAL STATUS REPORT FOR 2014

This report provides status of actions prescribed by Federal Facilities Compliance Agreement (FFCA) EPA Docket Number CWA-10-2013-0045 as follows:

FFCA Item 13.a

As required by the FFCA, PSNS & IMF continued, for the months of October 2013 through March 2014, to minimize discharges of wastewater to the permitted outfalls by routing to the sewer system or tanks unless the system was temporarily down for maintenance or the sewer system permitted allotment was exceeded due to heavy rain. This is accomplished by setting each of the dry docks' process water turbidity meters at zero nephelometric turbidity units (NTUs) which routes all process water irrespective of turbidity to the sewer system or to a tank for treatment. There were portions of 28 days during this reporting period when these circumstances required PSNS & IMF to send water to the bay.

There were also intermittent and brief periods on 19 days in which logs show water going to bay from dry docks 2, 3, 4, and 5 when the Process Water Collection System (PWCS) was in sewer mode and water should have gone to sewer. It is unknown whether water was actually sent to bay for these short periods or whether the computer system is reporting it incorrectly. Programmers have attempted to trouble shoot the problem but it is so brief and intermittent that it is difficult to replicate to solve. We continue to watch for this situation to identify the cause. However, the system will be replaced with the Military Construction Projects (MILCONs) described in paragraph 13.f below.

PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
FIRST SEMI-ANNUAL STATUS REPORT FOR 2014

FFCA Item 13.b

Turbidity meters for all Dry Docks (Dry Docks 1 through 6) were calibrated by December 31, 2013. Table I below provides the dates of calibration for all turbidity meters:

Table I Turbidity Meter Calibration	
Dry Dock	Turbidity Meter Calibration Completion Date
1	7/10/2013
2	7/10/2013
3	7/10/2013
4	3/14/2013
5	6/29/2013
6	6/18/2013

FFCA Item 13.c

Since the last FFCA report, two projects were completed at PSNS & IMF. Cleaning of Dry Dock 4 was completed on January 27, 2014 and cleaning of the process water tank was performed on January 29, 2014. Cleaning of Dry Dock 3 was completed on March 3, 2014 and cleaning of the process water tank was performed on March 7, 2014.

FFCA Item 13.d

This item was closed in the first FFCA report sent May 15, 2013.

FFCA Item 13.e

Military Construction Project P-419 which upgrades the infrastructure of Dry Dock 6 and enables PSNS & IMF to send on the floor of the dock to sewer or to the Oily Water Treatment System (OWTS) for treatment based on turbidity levels, is operational but not complete and is estimated to be at 97%.

FFCA Item 13.f

Military Construction Project P-420 for the piping for Dry Docks 3 and 4 has been funded for fiscal year 2014 and the Navy is working to award the contract. Funding for Military Construction Project P-422 which upgrades the infrastructures of

Dry Docks 1, 2 and 5 for fiscal year 2015 has been requested as stated in the last report.

FFCA Item 13.g

The PWCS inspections of Dry Docks 1 through 6 performed in June 2013 did not identify any needed repairs or replacements.

This item is deemed **complete** and submitted pursuant to paragraph 20 of the FFCA.

FFCA Item 13.h

The PWCS periodic inspection of Item 13.g did not identify any needed repairs/replacement/maintenance.

C-4

DEPARTMENT OF THE NAVY
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

IN REPLY REFER TO

5090
Ser 106.32/0349
NOV 27 2013

RECEIVED
DEC - 2 2013
U.S. EPA REGION 10
OFFICE OF COMPLIANCE AND ENFORCEMENT

Mr. Chae Park
US EPA - Region 10
NPDES Compliance Unit OCE-133
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Mr. Park:

This letter provides Puget Sound Naval Shipyard and Intermediate Maintenance Facility's (PSNS & IMF's) Federal Facilities Compliance Agreement (FFCA) Second Semi-Annual Status Report for 2013, required by FFCA EPA Docket No. CWA-10-2013-0045 of 04 April 2013. The report is attached.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person who manages the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Questions or comments regarding this information may be addressed to Mr. Larry Hsu, Code 106.32, at (360) 476-4738.

Sincerely,

Lesly B. Doyle

L. B. DOYLE
Head, Environmental Division
Environmental, Safety, and
Health Office
Acting

Enclosures: 1. PSNS & IMF Federal Facilities Compliance Agreement EPA Docket No. CWA-10-2013-0045 Second Semi-Annual Status Report for 2013

PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
SECOND SEMI-ANNUAL STATUS REPORT FOR 2013

Enclosure (1)

PSNS & IMF FEDERAL FACILITIES COMPLIANCE AGREEMENT
EPA DOCKET NO. CWA-10-2013-0045
SECOND SEMI-ANNUAL STATUS REPORT FOR 2013

This report provides status of actions prescribed by Federal Facilities Compliance Agreement (FFCA) EPA Docket Number CWA-10-2013-0045 as follows:

FFCA Item 13.a

The first FFCA Status report submitted to the EPA in May 2013 stated that this report would provide information for the period between May through October 2013 for this item. We are instead providing information from May through September 2013 as agreed to with Mr. Chae Park, EPA Region 10 NPDES Compliance Officer. This coincides with the time period of other reports which use the same information to report discharges to the sanitary sewer and thereby minimizes duplication of efforts needed to obtain this information. The next FFCA Status report will provide information from October 2013 through March 2014.

For the months of May through September 2013, PSNS & IMF successfully maximized routing as much dry dock storm water (also called process water) to the sewer system as possible. Since all dry docks had their process water turbidity meters set at zero nephelometric turbidity units (NTUs), all process water irrespective of turbidity was routed to the sewer system or to a tank for treatment except as follows:

1. With Dry Dock 6 Military Construction (MILCON) Project P-419 in progress to upgrade the Process Water Collection System (PWCS) to increase the capacity to send process water to the sewer, process water was primarily being sent to the bay via Outfall 019 with no project in dock creating industrial debris until the USS JOHN C. STENNIS (CVN 74) docked on June 27, 2013. The upgraded PWCS was placed into service in time for the USS JOHN C. STENNIS project. Since then process water was routed to the bay only for a few hours on six days of this reporting period when the sewer allotment or sewer system capacity was reached.

2. For Dry Docks 1 through 5, process water was routed to the bay for a few hours on 13 days of this reporting period when the sewer allotment was exceeded or the system or tanks were unavailable, and when the PWCS was required to be secured to support dry dock related maintenance (generally scheduled during off hours and for short duration usually between 4 to 8 hours). In addition, there was a period between June 24 and July 18 when

a programming problem with the process controller at Dry Dock 5 caused an average of 21,000 gallons per day of process water to be discharged to the bay. There was no permit exceedance of copper concentration during that period and the problem was corrected.

FFCA Item 13.b

Turbidity meter calibration dates for all Dry Docks (Dry Docks 1 through 6) were provided in the last report and all are still currently within the annual calibration period. The next FFCA report will provide updated calibration status of the turbidity meters (calibration due by December 31 of each year).

FFCA Item 13.c

Since the last FFCA report, one project was completed at PSNS. Cleaning of Dry Dock 1 was completed on June 11, 2013 and cleaning of the process water tank was performed on June 13, 2013.

FFCA Item 13.d

This item was closed in the last FFCA report.

FFCA Item 13.e

Military Construction Project P-419 which upgrades the infrastructure of Dry Dock 6 and enables PSNS&IMF to send water on the floor of the dock to sewer or to the Oily Waste Treatment System (OWTS) for treatment based on turbidity levels, is in progress and estimated at 90% complete.

FFCA Item 13.f

Design for Military Construction Projects P-420 and P-422 which upgrades the infrastructures of Dry Docks 1 through 5 and enables PSNS&IMF to send water on the floor of the dock to sewer or to the Oily Waste Treatment System for treatment based on turbidity levels, is now complete and funding has been requested by PSNS&IMF (Fiscal Year 14 for MILCON P-420 and FY 15 for MILCON P-422).

FFCA Item 13.g

Inspection of process water collection system lines in all dry docks is to be performed no later than 90 days after the

effective date of the FFCA signed on April 4, 2013 and Table I below provides the dates of completion of this inspection.

Table I PWCS Inspection	
Dry Dock	Completion Date
1	6/3/2013
2	6/17/2013
3	6/19/2013
4	6/6/2013
5	6/13/2013
6	6/18/2013

No PWCS lines were found to be in need of repair or replacement. The PWCS Inspection in Dry Dock 6 identified minor valve packing leaks not affecting operation and the contractor performing the work of MILCON P-419 has been tasked to repair/adjust as necessary.

FFCA Item 13.h

The PWCS periodic inspection of Item 13.g did not identify any needed repairs/replacement/maintenance needing longer than six months to complete.

DEPARTMENT OF THE NAVY

COMMANDER
ATTN CODE 106
NAVSHIPYD AND IMF PUGET SOUND
1400 FARRAGUT AVENUE
BREMERTON WA 98314-5001

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FIRST CLASS

MR CHAE PARK
U S EPA REGION 10
NPDES COMPLIANCE UNIT OCE 133
1200 SIXTH AVENUE SUITE 900
SEATTLE WA 98101

RETURN RECEIPT
REQUESTED

DEPARTMENT OF THE NAVY
OFFICE OF THE GENERAL COUNSEL
COUNSEL FOR THE
WESTERN AREA NAVAL SEA SYSTEMS COMMAND
PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE
BREMERTON, WASHINGTON 98314-5001

5090.7
Ser 107/001
3 Jan 2013

Mary Stroh Queitzsch
Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

Ms. Queitzsch:

Subject: FORWARDING PWCS INSPECTION REQUIREMENTS

Enclosed are the quarterly, semi-annual, and annual preventative maintenance instructions (PMIs) which spell out the inspection and maintenance requirements for our process water collection system (PWCS). On December 21, 2012 I forwarded you a revised draft of the Federal Facility Compliance Agreement (FFCA) we are negotiating. At comment A12 of that version, in paragraph 14 of the FFCA, I reference these PMIs. As I explained, I was awaiting security review to release these documents. The release process has been completed and so they are enclosed.

These preventative maintenance instructions (PMIs) demonstrate that the EPA's suggestion, at the old paragraph 14g of the FFCA, that PSNS&IMF conduct an immediate one time inspection of our PWCS lines and that we develop a schedule for regular inspection is unnecessary as this is already in place.

Additionally, please note that paragraph C on page 2 of the Annual PMI requires annual calibration of the turbidity sensors. This demonstrates we already have a system in place for this action and so EPA's suggestion at paragraph 14(a) of the draft FFCA is also unnecessary.

We have provided instructions applicable to Dry Dock 6. A separate instruction exists for each dock and, with the exception of the number of the dock to which they apply, and accommodation for pump names and line configuration which must differ between docks, the instructions are identical. I hope this information will be helpful in reaching agreement on a final FFCA.

Thank you for your assistance in this matter,

Wendy Kelly
Assistant Counsel
PSNS&IMF

5090.7
Ser 107/001
3 Jan 2013

ENCLOSURES:
(1) 9810706-15, 90 PW **Quarterly** #6 Drydock Processed Water System Maintenance
(2) 9810706-16, 90 PW **Semi-Annual** #6 Drydock Process Water System Maintenance
(3) 9810706-17, 90 PW **Annual** #6 Drydock Processed Water System Maintenance

Copy to:
Chae Park
NPDES Compliance Unit
OCE-133
Office of Compliance and Enforcement
US EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

9810706-15 Quarterly

90 PW **Quarterly** #6 Drydock Processed Water System Maintenance

(Date last changed, 20 Mar. 07 lvj)

Notes:

a. ONLY perform maintenance on equipment applicable to this work order.
b. Perform assigned inspections and maintenance in accordance with references (1) through (5).
c. If applicable, before commencing work; obtain proper work outages as per references (3) and (4).
d. DO NOT operate any valves or equipment tagged for nuclear service.
e. Be alert for unusual noise, vibrations, smells and leaks.
f. The lead W/C supervisor shall be responsible or coordinating ALL crafts that have work to perform on this work order.

A. Processed Water Manual Operated Valves

1. Place Process Water system in Hand with both pumps off. Inspect and exercise Process Water valves J, K, L, M, Q, and P through their entire cycle and return to position found. See attached sketches for valve identification.

2. Place Process Water system in "Hand", open SV-2 and when there is enough water in the TANK, start pump #1. Inspect overall condition of Process Water valves J and L and check for leaks. Tighten or replace packing as necessary.

3. Stop pump # 1, close SV-2 and open SV-3 and when there is enough water in the TANK, start pump #2. Inspect overall condition of Process Water valves K and M and check for leaks. Tighten or replace packing as necessary.

4. Stop pump #2 and return system to "AUTO".

5. Inspect and exercise compressed air valves AP-2 through AP-8 through their entire cycles and return to positions found. Inspect overall condition of compressed air valves AP-2 through AP-8 and check for leaks. Tighten or replace seals as necessary.

6. Clean and preserve all the above valves and fasteners as required.

7. Report any problems via Work Order.

B. Filter/Moisture Separator

1. Open drain cock (turn counterclockwise) and drain off any bowl accumulation for filter H.

Enclosure (1)

C. Submit a Work Order for any Unacceptable conditions that exist and are beyond the scope of this work order.

a. If modification of this Job Package is required/recommended, highlight the areas of concern so Engineering and Plannermen can resolve/update work documents. Check Here: _____

99PW **Semi- Annual** #6 Drydock Process Water System Maintenance

(Date last changed, 06/25/2010 BLL)

GENERAL NOTES:

a. ONLY perform maintenance on equipment applicable to this work order.
b. Perform assigned inspections and maintenance in accordance with reference (1).
c. If applicable, before commencing work; obtain the proper work outages.
d. Be alert for unusual noise, vibrations, smells and/or leaks.
e. The lead W/C supervisor shall be responsible for coordinating All crafts that have work to perform on this work order.
g. Attach completed forms to completed PMI and route to Code 980 for review.

A PROCESS WATER MOTOR MEGGER CHECKS

Note:

a. If any electrical conductors require energizing during the performance of this Work Order, (meggering, temporary power, auxiliary power) all personnel will "STOP" work and get clear of electrical components. "Prior to returning to work, all electrical components will be de-energized and voltage tested."
b. If megger tests are less than **1.0 Meg Ohm minimum** for cable and **1.5 Meg Ohm minimum** for motors, using a **500 V megger**, notify the PW Foreman.
c. Record megger results on a megger test sheet and attach to the work order upon completion.

1. Check connections for tightness.
2. Megger motor windings phase to ground.
3. Megger line leads from controller to supply breaker.
4. Submit a Work Order if unacceptable readings are obtained.

C. PROCESS WATER PUMP CAPACITY

Note:

a. One operator must be standing over the grate in the bottom of dock to listen and observe the pump operating.
b. This will require the basin to be pumped down far enough so that most of the pump is out of the water. Notify S/03 Electrical Dispatch at x-2510 that low water level alarm may sound due to testing.
c. Mechanics will have to refill sump with saltwater from firemain to perform all testing. After the sump fills back up, start pump test. Monitor flowmeter display.

Enclosure (2)

1. Monitor pumps, discharge and check valves for unusual noise, vibrations, smells and leaks.
2. Record 4 flowrates (gpm) at 30 seconds, 45 seconds, 60 seconds and 75 seconds after start.
3. Record pump discharge pressure shown on display.
4. Record the runtime hours shown on the hour meter for each pump.
5. Record data in PUMP TEST sheet in ATTACHMENT #1.
6. Forward one copy of PUMP TEST sheet to Code 980.7 for review.

Note: If a Process Water Pump has reached 2000 hours run time as recorded above, Engineering is to submit a Work Order to remove the pump, perform a visual inspection and if necessary, perform a Class B overhaul on that pump. Install new hour when the new pump is re-installed.

D. Work Order Submittal

1. Submit a Work Order for any Unacceptable conditions that exist and are beyond the scope of this work order.

If modification of this Job Package is required or recommended, highlight the areas of concern so Engineering and P&E can resolve/update work documents.
Check Here: _____

PROCESS WATER PUMPS DRYDOCK # 6 TEST

RUN	PUMP	PUMP PRESSURE PSIG	FLOW 30 SEC GPM	FLOW 45 SEC GPM	FLOW 60 SEC GPM	FLOW 75 SEC GPM	FLOW AVE. GPM
1	PUMP 1 SEWER						
2	PUMP 2 SEWER						
3	PUMP 1 DRAIN (BAY)						
4	PUMP 2 DRAIN (BAY)						

Pump #1 run time _____ hours (see note below)

Pump #2 run time _____ hours (see note below)

Mechanic's signature: _____ Date:_____

Engineering review signature: _____ Date:_____

Note: If a Process Water Pump has reached 2000 hours run time as recorded above, Engineering is to submit a Work Order to remove the pump, perform a visual inspection and if necessary, perform a Class B overhaul on that pump. Install new hour when the new pump is re-installed.

ATTACHMENT # 1

Enclosure (2)

90 PW **Annual** #6 Drydock Processed Water System Maintenance

(Date last changed, 06/25/2010, BLL)

GENERAL NOTES:

a. ONLY perform maintenance on equipment applicable to this work order.
b. Perform assigned inspections and maintenance in accordance with references (1) through (5).
c. If applicable, before commencing work; obtain proper work outages as per references (3) and (4).
d. DO NOT operate any valves or equipment tagged for nuclear service.
e. Be alert for unusual noise, vibrations, smells and leaks.
f. The lead W/C supervisor shall be responsible or coordinating ALL crafts that have work to perform on this work order.
g. Attach completed calibration forms to completed PMI and route to Code 980 for review.

A. CONTROL PANEL

1. Inspect the inside of the cabinet and clean using a vacuum cleaner.
2. Wipe down the panel with a soft cloth and mild cleaner. DO NOT USE SOLVENT.
3. Check all connections for tightness. Inspect all wiring for damaged insulation.
4. Inspect cabinet gasket and replace if necessary.

B. FLOW METER CALIBRATION

Note: Refer to system schematic as necessary.

A. Flowmeters F1 and F2 will be calibrated by comparing the total volume pumped as shown on the flowmeter displays with the water level drop in the PWCS tank. **NOTE:** Record all INITIAL values before starting test.

1. Ensure that there is sufficient water in the PWCS tank to conduct the test and then place the controller in "hand" mode.
2. Shut SV-1 and ensure SV-5 is closed.
3. Enable SV-3 and ensure it is open.
4. Ensure valves SV-2 and SV-4 are closed.
5. Flowmeter 1:
   a. Close valves M, P and Q.
   b. Record the INITIAL flow volume indicated on Flowmeter F1 display.
   c. Record the INITIAL "foot" level indicated on the computer display.
6. **Start** Pump 1.
7. Record pump discharge pressure and GPM as indicated on the screen.
8. **Stop** Pump 1 after the tank level has dropped a minimum of four feet.

Enclosure (3)

a. Record the FINAL flow volume indicated on Flowmeter F1 display.
b. Record the FINAL "foot" level indicated on the computer display.
c. Record total gallons pumped as shown on the PLC.
d. If the PLC volume and tank volume are more than 10% different, repeat this test or contact C/980.7 for direction.
e. Open valve M.

9. Flowmeter 2:
   a. Close valve L.
   b. Record the INITIAL flow volume indicated on Flowmeter F2 display.
   c. Record the INITIAL "foot" level indicated on the computer display.
10. **Start** Pump 2.
11. **Stop** Pump 2 after the tank level has dropped a minimum of four feet.
   a. Record the FINAL flow volume indicated on Flowmeter F2 display.
   b. Record the FINAL "foot" level indicated on the computer display.
   c. Record total gallons pumped as shown on the PLC.
   d. If the PLC volume and tank volume are more than 10% different, repeat this test or contact C/980.7 for direction.
12. Open valves L, M, P and Q.
13. Open SV-1.
14. Place system back in AUTO Turbidity mode.

Enclosure (3)

C. OBS-3+ TURBIDITY SENSOR CALIBRATION

Equipment and Materials

Two black, matte-finished, plastic buckets with 10 inch I.D. minimum (United States Plastic Corp., 1-800-809-4217, www.usplastic.com, Item No. 2271 bucket, and Item No. 2272 Lid)
Two gallons filtered distilled water
Three gallons of AMCO turbidity standard solution 100 NTU (GFS Chemicals 877-534-0795, www.gfschemicals.com, Item #8021, SKU #85097 one gallon container)
Three gallons of AMCO turbidity standard solution 10 NTU (GFS Chemicals 877-534-0795, www.gfschemicals.com, Item #8014, SKU #85067 one gallon container)
Two 500 ml color coded wash bottles for use with 100 and 10 NTU turbidity standard solution rinses (VWR, 1-800-932-5000, www.vwr.com, Cat. No. 16125-170)

Procedure

NOTE: This calibration needs to be accomplished with C/980.7.

1. Scrub the sensor and container with detergent and water and rinse everything twice with filtered distilled water.
2. If the calibration can not be performed under only fluorescent lighting, the black bucket must be covered with an opaque cover to prevent ultraviolet light from reaching the sensor during the calibration readings.
3. Rinse the sensor with 100 NTU turbidity standard solution and mount the sensor in the 100 NTU bucket as shown in Figure 1. Mount the sensor a minimum of 2 inches above the bottom of the container. Add 100 NTU turbidity standard solution until the sensor is submerged at least 2 inches.
4. If needed, wait one hour for the calibration standard solution to equilibrate to room temperature, and tap bubbles off the container wall.
5. Monitor the output for one minute. If the output is fluctuating more than plus or minus 100 for the real time controller value, check the sensor mount and electrical connections, before proceeding.
6. Record the values on the provided record sheets.
7. Repeat steps 2 through 6 with 10 NTU turbidity standard solution.

Enclosure (3)

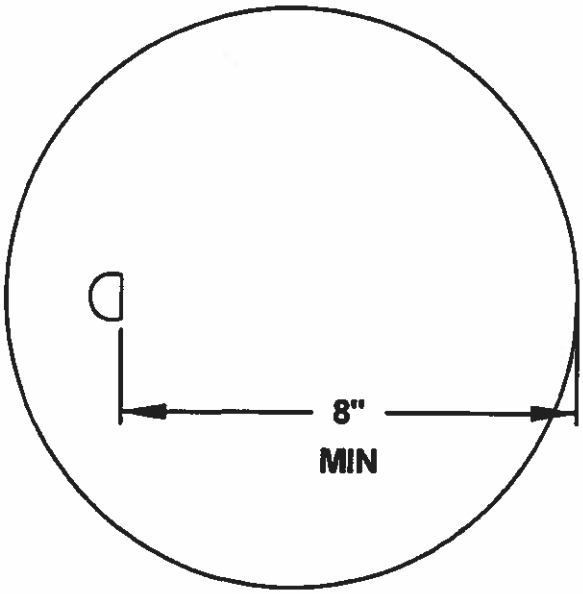

FIGURE 1

Enclosure (3)

PWCS FLOW METER CALIBRATION FORM

DRYDOCK #6 – PUMP #1 TO SEWER

	PLC REPORTED VALUE (gallons)	Flowmeter volume (gallons)	Actual Volume Pumped (gallons) (147 gal/ft)	PWCS Sump Level (feet)	Pump GPM & Pressure
FINAL					
INITIAL					
Δ					

Comments:
1. Actual Volume Pumped = Calculated sump volume (gal/ft) * Sump level Δ (feet).
2. Comparison = (Flowmeter Volume – Actual Volume Pumped) * 100 / (Actual Volume Pumped)

(-) * 100 / ( ) =

3. Comparison = (PLC Reported Value – Actual Volume Pumped) * 100 / (Actual Volume Pumped)

(-) * 100 / ( ) =

DRYDOCK #6 – PUMP #2 TO SEWER

	PLC REPORTED VALUE (gallons)	Flowmeter volume (gallons)	Actual Volume Pumped (gallons) (147 gal/ft)	PWCS Sump Level (feet)	Pump GPM & Pressure
FINAL					
INITIAL					
Δ					

Comments:
1. Actual Volume Pumped = Calculated sump volume (gal/ft) * Sump level Δ (feet).
2. Comparison = (Flowmeter Volume – Actual Volume Pumped) * 100 / (Actual Volume Pumped)

(-) * 100 / ( ) =

3. Comparison = (PLC Reported Value – Actual Volume Pumped) * 100 / (Actual Volume Pumped)

(-) * 100 / ( ) =

USRO Signature _____ Date: _____

Engineering Review Signature_____ Date: _____

Enclosure (3)

PWCS TURBIDITY SENSOR CALIBRATION FORM

DRY DOCK # _____

Turbidity Standard Solution (NTU)	Controller Input Value

USRO Signature _____ Date _____

Engineering Review Signature _____ Date _____

Enclosure (3)